

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

HTC CORPORATION AND HTC AMERICA,)
INC.,)
)
Plaintiffs,)
)
v.)
)
TECHNOLOGY PROPERTIES LIMITED,)
et al.,)
)
Defendants.)

Case No.: 5:08-cv-00882-PSG

**ORDER RE: HTC'S MOTIONS FOR
SUMMARY JUDGMENT OF
NON-INFRINGEMENT AND
NO WILLFULNESS**

(Re: Docket Nos. 457, 458)

Before the court in this patent case are two motions for summary judgment brought by Plaintiffs HTC Corporation and HTC America, (collectively "HTC"). HTC first moves for "full" summary judgment of non-infringement and no willful infringement of U.S. Patent No. 5,809,336 ("the '336 patent"). HTC separately moves for partial summary judgment of non-infringement of the '336 patent and U.S. Patent No. 5,530,890 ("the '890 patent") and no willful infringement of the '890 patent. On August 13, 2013, the parties appeared for a hearing. Having considered the papers and arguments of counsel:

The court DENIES HTC's motion for summary judgment of "full" non-infringement of the '336 patent.

1 The court DENIES HTC's motion for partial summary judgment of non-infringement of the
2 '336 patent.

3 The court DENIES HTC's motion for summary judgment of no willful infringement of the
4 '336 patent.

5 The court GRANTS HTC's motion for partial summary judgment of non-infringement of
6 the '890 patent.

7 The court GRANTS-IN-PART HTC's motion for partial summary judgment of no willful
8 infringement of the '890 patent.

9 The court sets forth its reasoning below.

10 **I. BACKGROUND**

11
12 HTC Corporation is a Taiwan corporation with its principal place of business in Taoyuan,
13 Taiwan, R.O.C. HTC's subsidiary, HTC America, is a Texas corporation with its principal place
14 of business in Bellevue, Washington. Defendants Technology Properties Limited and Alliacense,
15 Limited ("Alliacense") are California corporations with their principal place of business in
16 Cupertino, California; Patriot Scientific Corporation ("Patriot") is a Delaware corporation with its
17 principal place of business in Carlsbad, California. These defendants – Technology Properties
18 Limited, Alliacense, and Patriot (collectively "TPL") – claim ownership of a family of related
19 microprocessor patents. TPL refers to those patents as the Moore Microprocessor Portfolio patents
20 ("MMP patents"), in recognition of co-inventor Charles Moore's contributions. HTC filed this suit
21 on February 8, 2008, seeking a judicial declaration that four of the MMP patents – U.S. Patent Nos.
22 5,809,336 ("the '336 patent"), 5,784,584 ("the '584 patent"), 5,440,749 ("the '749 patent"), and
23 6,598,148 ("the '148 patent") – are invalid and/or not infringed.¹ TPL counterclaimed for
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28 ¹ See Docket No. 1.

1 infringement of the '336, '749, '148, and '890 patents on November 21, 2008.² On April 25, 2008,
 2 TPL filed two complaints in the Eastern District of Texas against HTC alleging infringement of the
 3 four patents at issue in the pending declaratory judgment action.³ On June 4, 2008, TPL filed
 4 additional patent infringement actions against HTC in the Eastern District of Texas asserting U.S.
 5 Patent No. 5,530,890 ("the '890 patent").⁴ On July 10, 2008, HTC amended its complaint before
 6 this court, adding claims for declaratory relief with respect to the '890 patent.⁵ On February 23,
 7 2009 the parallel Texas litigation was dismissed without prejudice following Judge Fogel's
 8 decision to deny TPL's Motion to Dismiss, or in the Alternative, to Transfer Venue in the
 9 California action.⁶ On March 25, 2010, the court accepted the parties' stipulation to dismiss the
 10 '584 patent from this litigation.⁷ On August 24, 2012, Technology Properties Limited, Patriot, and
 11 Phoenix Digital Solutions initiated an International Trade Commission ("ITC") investigation
 12 regarding HTC's alleged infringement of the '336 patent.⁸ On July 17, 2013, the court accepted
 13 the parties' stipulation to dismiss the '148 and '749 patents from this litigation.⁹

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 15 The bottom line is that only the '336 and '890 patents remain at issue for the purposes of
 16 this litigation.
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18 **A. The '336 Patent**

19 ² See Docket No. 60 at 6-8.

20 ³ See Docket No. 16 at 3.

21 ⁴ See Docket No. 35 at 5.

22 ⁵ See Docket No. 34.

23 ⁶ See Docket Nos. 49 (denying motion to dismiss, to transfer venue, and to stay) and 88 (granting
 24 motion for leave to file motion for reconsideration and denying motion for reconsideration).

25 ⁷ See Docket No. 152.

26 ⁸ See Docket No. 561-1. Claims 1, 6, 7, 9-11, and 13-16 were asserted in the investigation. On
 27 September 6, 2013, Administrative Law Judge James Gildea issued an Initial Determination from
 28 *See id.*

⁹ See Docket No. 462.

1 The '336 patent issued on September 15, 1998 and describes a microprocessor with an
2 internal variable speed clock, or oscillator, that drives the processor's central processing unit
3 ("CPU"). Traditional microprocessors use external, fixed speed crystals to clock the CPU. A
4 CPU's maximum possible processing capacity depends on process, voltage, and temperature
5 ("PVT parameters"). An external clock must therefore set the timing of the CPU to suboptimal
6 PVT conditions, resulting in waste of the CPU's processing speed under optimal conditions. The
7 internal, variable clock described in the '336 patent claims real-time adjustment of the timing of the
8 CPU by placing the clock on the chip itself. Thus, the CPU can perform optimally under any set of
9 parameters. The microprocessor nevertheless requires a second external clock because devices
10 other than the CPU do not operate at variable speed.

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13 TPL claims that HTC's accused products infringe the '336 patent by their internal, variable
14 speed oscillator on their microprocessors. At issue are claims 1, 6, 10, 11, 13, and 16.¹⁰

15 Claim 1 provides:

16 A microprocessor system, comprising a single integrated circuit including a central
17 processing unit and an entire ring oscillator variable speed system clock in said
18 single integrated circuit and connected to said central processing unit for clocking
19 said central processing unit, said central processing unit and said ring oscillator
20 variable speed system clock each including a plurality of electronic devices
21 correspondingly constructed of the same process technology with corresponding
22 manufacturing variations, a processing frequency capability of said central
23 processing unit and a speed of said ring oscillator variable speed system clock
24 varying together due to said manufacturing variations and due to at least operating
25 voltage and temperature of said single integrated circuit; an on-chip input/output
26 interface connected to exchange coupling control signals, addresses and data with
27 said central processing unit; and a second clock independent of said ring oscillator
28 variable speed system clock connected to said input/output interface, wherein a
clock signal of said second clock originates from a source other than said ring
oscillator variable speed system clock.

Claim 6 provides:

A microprocessor system comprising:

¹⁰ Docket No. 494 at 7.

1 a central processing unit disposed upon an integrated circuit substrate, said central
2 processing unit operating at a processing frequency and being constructed of a first
3 plurality of electronic devices; an entire oscillator disposed upon said integrated
4 circuit substrate and connected to said central processing unit, said oscillator
5 clocking said central processing unit at a clock rate and being constructed of a
6 second plurality of electronic devices, thus varying the processing frequency of said
7 first plurality of electronic devices and the clock rate of said second plurality of
8 electronic devices in the same way as a function of parameter variation in one or
9 more fabrication or operational parameters associated with said integrated circuit
10 substrate, thereby enabling said processing frequency to track said clock rate in
11 response to said parameter variation; an on-chip input/output interface, connected
12 between said central processing unit and an off-chip external memory bus, for
13 facilitating exchanging coupling control signals, addresses and data with said central
14 processing unit; and an off-chip external clock, independent of said oscillator,
15 connected to said input/output interface wherein said off-chip external clock is
16 operative at a frequency independent of a clock frequency of said oscillator and
17 wherein a clock signal from said off-chip external clock originates from a source
18 other than said oscillator.

19 Claim 10 provides:

20 In a microprocessor system including a central processing unit, a method for
21 clocking said central processing unit comprising the steps of: providing said central
22 processing unit upon an integrated circuit substrate, said central processing unit
23 being constructed of a first plurality of transistors and being operative at a
24 processing frequency; providing an entire variable speed clock disposed upon said
25 integrated circuit substrate, said variable speed clock being constructed of a second
26 plurality of transistors; clocking said central processing unit at a clock rate using
27 said variable speed clock with said central processing unit being clocked by said
28 variable speed clock at a variable frequency dependent upon variation in one or
more fabrication or operational parameters associated with said integrated circuit
substrate, said processing frequency and said clock rate varying in the same way
relative to said variation in said one or more fabrication or operational parameters
associated with said integrated circuit substrate; connecting an [on chip] on-chip
input/output interface between said central processing unit and an off-chip external
memory bus, and exchanging coupling control signals, addresses and data between
said input/output interface and said central processing unit; and clocking said
input/output interface using an off-chip external clock wherein said off-chip external
clock is operative at a frequency independent of a clock frequency of said variable
speed clock and wherein a clock signal from said off-chip external clock originates
from a source other than said variable speed clock.

Claim 11 provides:

A microprocessor system, comprising a single integrated circuit including a central
processing unit and an entire ring oscillator variable speed system clock in said
single integrated circuit and connected to said central processing unit for clocking
said central processing unit, said central processing unit and said ring oscillator

1 variable speed system clock each including a plurality of electronic devices
2 correspondingly constructed of the same process technology with corresponding
3 manufacturing variations, a processing frequency capability of said central
4 processing unit and a speed of said ring oscillator variable speed system clock
5 varying together due to said manufacturing variations and due to at least operating
6 voltage and temperature of said single integrated circuit; an on-chip input/output
7 interface connected to exchange coupling control signals, addresses and data with
8 said central processing unit; and a second clock independent of said ring oscillator
9 variable speed system clock connected to said input/output interface, wherein said
10 central processing unit operates asynchronously to said input/output interface.

11 Claim 13 provides:

12 A microprocessor system comprising: a central processing unit disposed upon an
13 integrated circuit substrate, said central processing unit operating at a processing
14 frequency and being constructed of a first plurality of electronic devices; an entire
15 oscillator disposed upon said integrated circuit substrate and connected to said
16 central processing unit, said oscillator clocking said central processing unit at a
17 clock rate and being constructed of a second plurality of electronic devices, thus
18 varying the processing frequency of said first plurality of electronic devices and the
19 clock rate of said second plurality of electronic devices in the same way as a
20 function of parameter variation in one or more fabrication or operational parameters
21 associated with said integrated circuit substrate, thereby enabling said processing
22 frequency to track said clock rate in response to said parameter variation; an on-chip
23 input/output interface, connected between said central processing unit and an off-
24 chip external memory bus, for facilitating exchanging coupling control signals,
25 addresses and data with said central processing unit; and an off-chip external clock,
26 independent of said oscillator, connected to said input/output interface wherein said
27 off-chip external clock is operative at a frequency independent of a clock frequency
28 of said oscillator and further wherein said central processing unit operates
asynchronously to said input/output interface.

Claim 16 provides:

In a microprocessor system including a central processing unit, a method for locking
said central processing unit comprising the steps of providing said central
processing unit upon an integrated circuit substrate, said central processing unit
being constructed of a first plurality of transistors and being operative at a
processing frequency; providing an entire variable speed clock disposed upon said
integrated circuit substrate, said variable speed clock being constructed of a second
plurality of transistors; clocking said central processing unit at a clock rate using
said variable speed clock with said central processing unit being clocked by said
variable speed clock at a variable frequency dependent upon variation in one or
more fabrication or operational parameters associated with said integrated circuit
substrate, said processing frequency and said clock rate varying in the same way
relative to said variation in said one or more fabrication or operational parameters
associated with said integrated circuit substrate; connecting an on-chip input/output
interface between said central processing unit and an off-chip external memory bus,

and exchanging coupling control signals, addresses and data between said input/output interface and said central processing unit; and clocking said input/output interface using an off-chip external clock wherein said off-chip external clock is operative at a frequency independent of a clock frequency of said variable speed clock, wherein said central processing unit operates asynchronously to said input/output interface.

B. The '890 Patent

The '890 patent first issued on June 25, 1996 and originally included ten claims, nine of which depended from the sole independent claim, claim 1.¹¹ On January 19, 2009, the '890 patent was subjected to ex parte reexamination.¹² An amended version of the patent emerged on March 1, 2011.¹³ The reexamination proceeding resulted in the cancellation of claims 1-4, confirmation of the patentability of claims 5-10, and addition of claims 11-20. At issue in this suit are claims 11, 12, 13, 17, and 19.¹⁴

Claim 11, the amended independent claim on which all of the other claims depend, describes:

A microprocessor, which comprises a main central processing unit and a separate direct memory access central processing unit in a single integrated circuit comprising said microprocessor, said main central processing unit having an arithmetic logic unit, a first push down stack with a top item register and a next item register, connected to provide inputs to said arithmetic logic unit, an output of said arithmetic logic unit being connected to said top item register, said top item register also being connected to provide inputs to an internal data bus, said internal data bus being bidirectionally connected to a loop counter, said loop counter being connected to a decrementer, said internal data bus being bidirectionally connected to a stack pointer, return stack pointer, mode register and instruction register, said stack pointer pointing into said first push down stack, said internal data bus being connected to a memory controller, to a Y register of a return push down stack, an X register and a program counter, said Y register, X register and program counter providing outputs to an internal address bus, said internal address bus providing inputs to said memory controller and to an incrementer, said incrementer being connected to said internal data bus, said direct memory access central processing

¹¹ See Docket No. 458 at 2.

¹² See *id.*

¹³ See *id.*

¹⁴ See *id.*

unit providing inputs to said memory controller, said memory controller having an address/data bus and a plurality of control lines for connection to a random access memory.

During reexamination, the patentee added the phrase “said stack pointer pointing into said first push down stack,” which did not appear in claim 1.

II. SUMMARY JUDGMENT STANDARDS

Summary judgment is appropriate only if there is “no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.”¹⁵ The moving party bears the initial burden of production by identifying those portions of the pleadings, discovery, and affidavits which demonstrate the absence of a triable issue of material fact.¹⁶ The standard for summary judgment differs depending on whether the moving party bears the burden of persuasion at trial.¹⁷ If the moving party bears the burden of persuasion at trial, that party must present “credible evidence” showing that he is entitled to a directed verdict.¹⁸ The burden of production then shifts to the non-moving party to produce evidence raising a genuine issue of material fact.¹⁹ On the other hand, if the moving party does not bear the burden of persuasion at trial, he can prevail on a motion for summary judgment in two ways: by proffering “affirmative evidence negating an element of the non-moving party’s claim,” or by showing the non-moving party has insufficient evidence to establish an “essential element of the non-moving party’s claim.”²⁰ If met by the moving party, the burden of production then shifts to the non-moving party, who must then provide

¹⁵ Fed. R. Civ. P. 56(a).

¹⁶ See Fed. R. Civ. P. 56(c)(1); *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986).

¹⁷ See *Celotex Corp.*, 477 U.S. at 331.

¹⁸ *Id.*

¹⁹ See *id.*

²⁰ *Id.*

specific facts showing a genuine issue of material fact for trial.²¹ In both instances, the ultimate burden of persuasion remains on the moving party.²² In reviewing the record, the court must construe the evidence and the inferences to be drawn from the underlying evidence in the light most favorable to the non-moving party.²³

III. DISCUSSION

A. HTC's Motion for Summary Judgment of Non-Infringement and No Willful Infringement of the '336 Patent

1. Non-Infringement of the '336 Patent

The court first considers HTC's motion for summary judgment of "full" non-infringement of the '336 patent. HTC argues that summary judgment is warranted because when the independent claims of the '336 patent are properly construed, HTC's products do not perform the claimed invention. HTC specifically points to three terms that each appear in two claims: (1) "entire ring oscillator variable speed system clock" (claims 1 and 11), (2) "entire oscillator" (claims 6 and 13), and (3) "an entire variable speed system clock" (claims 10 and 16).

HTC argues as follows. The prosecution history of the '336 patent demonstrates the applicants' repeated and express disclaimer that the claimed timing element – the oscillator or variable speed clock – had any connection to or dependence on a reference signal from an external crystal or other fixed timing piece. To further distinguish the '336 patent, the applicants added the "entire" term to explicitly claim only a timing element that wholly and exclusively appeared with the CPU on the chip. HTC's processors, in contrast, rely on an external crystal timing piece (called

²¹ See *id.* at 330; *T.W. Elec. Service, Inc. v. Pac. Elec. Contractors Ass'n*, 809 F.2d 630, 630 (9th Cir. 1987).

²² See *id.*

²³ See *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986); *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986).

1 a phase-locked loop or “PLL”). Unlike the invention, therefore, the timing elements of HTC’s
2 processors do not sit entirely on the chip and do not vary with PVT parameters.

3 TPL responds that HTC improperly seeks reconsideration of this court’s previous claim
4 construction. The court properly construed the “entire variable speed system clock” term and this
5 construction should extend to the other three “entire” terms. HTC’s additional limitations are not
6 supported by the specification, which does not speak to whether the oscillator or variable speed
7 system clock also could work with an external crystal. As for any disclaimer, the applicants never
8 disclaimed all reliance or reference to an off-chip crystal. Instead, the disclaimer to avoid the
9 Magar reference was to an off-chip oscillator that generated the on-chip clock. As to the Sheets
10 reference, the applicants distinguished their clock reference by pointing out that it was not an
11 on-chip oscillator but rather an off-chip clock, and that off-chip clock required a command input to
12 change its frequency. The oscillator taught by the ’336 patent, in contrast, is self-generating on the
13 chip itself and does not require an outside command to change frequency. As to the variation
14 argument, even by HTC’s own admission, the on-chip HTC oscillators vary and the PLLs in fact
15 serve to limit that variation. That the net result may be a minimal change in the frequency of the
16 clock is not enough to take HTC’s accused products beyond the claim language.

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19 HTC replies that the on-chip oscillator does not “generate” the CPU clock unless it
20 communicates with the PLL, making the PLL necessary to “generate” the clock – and thereby
21 outside of the claim language (as construed in light of the disclaimers). HTC further replies that
22 frequency control in fact is generation of the clock because the oscillator does not begin to run
23 independently. The PLL controls the oscillator and sets the frequency, which generates the clock.
24 As to the variation issue, HTC argues that a person of ordinary skill in the art would understand the
25 de minimis variation experienced by its products as rendering the timing element essentially fixed.
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The court agrees with HTC that the disputed limitations are properly understood to exclude any external clock used to generate a signal.²⁴ Nevertheless, there remains a factual dispute whether HTC's products contain an on-chip ring oscillator that is self-generating and does not rely on an input control to determine its frequency. While HTC's expert says that the PLLs generate the clock, TPL's expert counters that the ring oscillators generate the clock and the PLLs merely buffer or fix the frequency.²⁵ This is a classic factual question that requires a trial to answer.

2. Willful Infringement of the '336 Patent

To "establish willful infringement, a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent."²⁶ A patentee therefore must establish two elements. First, the patentee must show the accused infringer acted with "objective recklessness." Objective recklessness remains a question of law "predicated on underlying mixed questions of law and fact."²⁷ The objective recklessness prong "entails an objective assessment of potential defenses based on the risk presented" by the patent which "may include questions of infringement but also can be expected in almost every case to entail questions of validity that are not necessarily

²⁴ The patentee's arguments traversing the prior art narrowed the claims. *See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 740 (2002) ("A patentee's decision to narrow his claims through amendment may be presumed to be a general disclaimer of the territory between the original claim and the amended claim."); *cf. Saeilo Inc. v. Colt's Mfg. Co.*, 26 F. App'x 966, 973 (Fed. Cir. 2002) ("Where an amendment narrows the scope of a claim for a reason related to the statutory requirements for patentability, prosecution history estoppel acts as a complete bar to the application of the doctrine of equivalents to the amended claim element.").

²⁵ *Compare* Docket No. 457 at 16 ("the oscillators in the accused products indisputably rely on an external crystal or clock generator to clock" the CPU), *with* Docket No. 470 at 14 ("Each HTC product includes a CPU/system clock – a **ring oscillator** within a PLL – that **generates** a clock signal **on its own**, as long as it has a power supply.") (emphasis in original).

²⁶ *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (*en banc*).

²⁷ *See Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1006-07 (Fed. Cir. 2012) (holding that the objective determination of recklessness, even though predicated on underlying mixed questions of law and fact, is decided by the judge as a question of law subject to de novo review).

1 dependent on the factual circumstances of the particular party accused of infringement.”²⁸ Second,
 2 if the requisite threshold objective recklessness is established, then the patentee must show that the
 3 “objectively-defined risk” of infringement determined by the record developed in the infringement
 4 proceeding “was either known or so obvious that it should have been known to the accused
 5 infringer.”²⁹

6 HTC argues that TPL has not presented sufficient evidence to make a prima facie case of
 7 willful infringement, in view of its “clear, legitimate, and objectively reasonable defenses” to
 8 HTC’s claims of infringement.³⁰ In particular, its proposed constructions have been adopted by
 9 other tribunals and the ITC in particular. HTC’s non-infringement position at the ITC was
 10 “sufficiently compelling and reasonable” that both the ITC staff attorney and Judge Gildea himself
 11 agreed with HTC’s position.³¹

12 TPL takes issue with HTC’s reference in this case to the ITC litigation. Different theories
 13 of infringement and different products are implicated by the two cases. Different claim
 14 constructions have issued in the cases. The staff attorney’s position and Judge Gildea’s
 15 conclusions are therefore irrelevant. Separately, TPL’s successful licensing of the MMP patent
 16 portfolio suggests that HTC could not reasonably or realistically expect its invalidity or
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21 ²⁸ *Id.* at 1006.

22 ²⁹ *Seagate*, 497 F.3d at 1371.

23 ³⁰ Looking to Fed. R. Civ. P. 37(c)(1) HTC further points out that TPL failed to substantively
 24 respond to its interrogatory about willful infringement. *See* Fed. R. Civ. P. 37(c)(1) (“If a party
 25 fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not
 26 allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial,
 27 unless the failure was substantially justified or is harmless.”). But TPL’s response raising a host of
 28 objections appears substantially justified, even if it is not ultimately persuasive, and in any event
 HTC does not appear to have taken any steps whatsoever in the intervening four years to compel a
 more complete response.

³¹ Judge Gildea’s Initial Determination (“ID”) did not issue until September 6, 2013, after the
 papers for this motion were filed.

1 non-infringement defenses to succeed in this litigation. Finally, direct pre-suit communication
 2 between HTC and TPL establishes that HTC had notice of its allegedly infringing activities.

3 District courts appear split as to whether current evidence that a party's actions were
 4 objectively reasonable is relevant to a willfulness analysis under *Seagate*. In *i4i Ltd. P'ship v.*
 5 *Microsoft Corp.*, Judge Davis held that the correct willfulness analysis "focuses on whether, given
 6 the facts and circumstances prior to [the accused infringer's] infringing actions, a reasonable
 7 person would have appreciated a high likelihood that acting would infringe a valid patent."³² The
 8 "number of creative defenses that Microsoft is able to muster in an infringement action after years
 9 of litigation and substantial discovery is irrelevant to the objective prong of the *Seagate* analysis."³³
 10 Judge Davis then explained that the court should more properly focus on whether defenses would
 11 have been objectively reasonable and apparent before Microsoft infringed and was sued.³⁴ In
 12 *Uniloc USA, Inc. v. Microsoft Corp.*, Judge Smith was "not convinced that such a 'before and after'
 13 line is so easily drawn, or for that matter appropriate, to measure the objective likelihood (or lack
 14 thereof) that a party acted to infringe a valid patent."³⁵ Judge Smith emphasized that "the inquiry
 15 is case-specific" and should focus on an objective view of the record.³⁶

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 18 The court agrees with HTC that favorable court rulings can support the objective
 19 reasonableness of its non-infringement positions. The court cannot help but take note of the
 20 analogous issue of the "book of wisdom" when addressing patent damages. The Supreme Court
 21 has affirmed that after-arising "[e]xperience . . . is a book of wisdom that courts may not
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24 ³² 670 F. Supp. 2d 568, 582 (E.D. Tex. 2009).

25 ³³ *Id.*

26 ³⁴ *See id.*

27 ³⁵ 640 F. Supp. 2d 150, 177 n. 33 (D.R.I. 2009).

28 ³⁶ *Id.*

neglect.”³⁷ Nonetheless, “as the party moving for summary judgment” HTC “must do more than persuade [the court] that its defenses were reasonable.”³⁸ Instead, HTC “must establish that ‘there is no genuine dispute as to any material fact’ and that [the accused infringer] ‘is entitled to judgment as a matter of law’—in other words, that *no reasonable fact-finder* could find willful infringement.”³⁹

Viewing the evidence in the light most favorable to TPL, the court concludes that a reasonable fact finder could plausibly find facts sufficient to support a conclusion of willful infringement. TPL’s burden to show willful infringement by clear and convincing evidence is a steep one. But where factfinding is necessary, trial courts generally reserve willfulness until after a full presentation of the evidence on the record to the jury.⁴⁰ The record supports a finding that HTC knew about the patents and TPL’s claims of infringement before it began the activities that allegedly infringe and as explained above, here there remains an important issue regarding the role of the external crystal in HTC’s products in generating a signal.⁴¹ Under these circumstances summary judgment on the issue of willfulness is not warranted.

B. Partial Summary Judgment of Non-Infringement of the ’336 Patent and the ’890 Patent and No Willful Infringement of the ’890 Patent

HTC next moves for partial summary judgment of non-infringement of the ’336 patent and the ’890 patent based on the doctrine of absolute intervening rights. By this same motion, HTC also seeks summary judgment of no willful infringement under the ’890 patent.

³⁷ *Sinclair Ref. Co. v. Jenkins Petroleum Process Co.*, 289 U.S. 689, 690 (1933).

³⁸ *Kimberly-Clark Worldwide, Inc. v. First Quality Baby Products, LLC*, Case No. 1:09-cv-1685, 2013 WL 1465403, at *2 (M.D. Pa. Apr. 11, 2013)

³⁹ *Id.* (citing Fed. R. Civ. P. 56(a)).

⁴⁰ *See, e.g. Bard*, 682 F.3d at 1008; *Fujitsu Ltd. v. Belkin Int’l, Inc.*, Case No. 10-cv-03972-LHK, 2012 WL 4497966, at *39 (N.D. Cal. Sept. 28, 2012).

⁴¹ *See* Docket No. 470-1, Ex. A (Nov. 7, 2006 correspondence from Alliacense to HTC); Docket No. 470-1, Ex. B (Nov. 20, 2006 correspondence from Alliacense to HTC).

Under 35 U.S.C § 307(b), a patent owner may not recover for infringement of claims that are invalidated or amended through the reexamination process.⁴² The “reexamination statute restricts a patentee’s ability to enforce the patent’s original claims to those claims that survive reexamination in ‘identical’ form.”⁴³ “‘Identical’ does not mean verbatim, but means at most without substantive change.”⁴⁴ The court must therefore determine whether the scope of the claims are the same, not just whether the same words are used.⁴⁵ Section 307 shields “those who deem an adversely held patent to be invalid; if the patentee later cures the infirmity by reissue or reexamination, the making of substantive changes in the claims is treated as an irrebuttable presumption that the original claims were materially flawed.”⁴⁶ The “statute relieves those who may have infringed the original claims from liability during the period before the claims are validated.”⁴⁷

Whether “amendments made to overcome rejections based on prior art are substantive depends on the nature and scope of the amendments, with due consideration to the facts in any given case that justice will be done.”⁴⁸ “An amendment that clarifies the text of the claim or makes it more definite without affecting its scope is generally viewed as identical.”⁴⁹ To make its determination under the so-called doctrine of intervening rights, the court must consider “the scope of the original and reexamined claims in light of the specification, with attention to the references

⁴² See *Fresenius USA, Inc. v. Baxter Intern., Inc.*, 721 F.3d 1330, 1339 (Fed. Cir. 2013).

⁴³ *Id.* (listing cases).

⁴⁴ *Id.*

⁴⁵ See *id.*

⁴⁶ *Bloom Eng’g Co. v. N. Am. Mfg. Co.*, 129 F.3d 1247, 1249 (Fed. Cir. 1997).

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

that occasioned the reexamination, as well as the prosecution history and any other relevant information.”⁵⁰

1. Non-Infringement of the ’336 Patent

As noted earlier the ’336 patent issued September 15, 1998, and included ten originally-issued claims.⁵¹ A series of ex parte reexamination requests were filed against the ’336 patent between October 2006 and January 2007.⁵² When the reexamination proceedings completed, claims 1, 6, and 10 emerged with modified language, and new independent claims 11, 13, and 16 were added. TPL amended claim 1 to further describe the “second clock independent of said ring oscillator” to say that “wherein a clock signal of said clock originates from a source other than said ring oscillator variable speed system clock.” Claim 6 was amended to describe the “off-chip external clock” to likewise derive its “clock signal” “from a source other than said oscillator.” Claim 10 includes a similar amendment that adds that the “off-chip external clock” has a “clock signal” that “originates from a source other than said variable speed clock.” Claims 6 and 10 also added “off-chip” references to the descriptions of the second clocks. Claims 11, 13, and 16 were based on independent claims 1, 6, and 10, but during reexamination TPL added an additional clause to the end of each claim: “wherein said central processing unit operates asynchronously to said input/output interface.”

In HTC’s view, it should not be held liable for infringement of the ’336 patent claims 1, 6, 10, 11, 13, and 16 because those claims were either substantially narrowed or newly-added through reexamination. Any recovery for the ’336 patent should be limited to the date of the issuance of the reexamination certificate on December 15, 2009, because the amendments were sufficiently substantive to preclude recovery from before the amendments.

⁵⁰ *Id.*

⁵¹ *See* Docket No. 458 at 5.

⁵² *Id.*

1 TPL responds that these amendments serve as nothing more than clarification of the claim
2 language and that the scope of the claims have not changed. Several excerpts from the prosecution
3 history of the reexamination demonstrate that the patentee believed the amended claim language
4 only clarified how the second clock was “independent”⁵³ and that the “external” components were
5 in fact “off-chip”⁵⁴.

6 HTC replies that the original claims differ from the amended claims in scope because the
7 original claims spoke only to the difference in frequency control – and that is what “independence”
8 really references in these claim terms. Because a clock with signal origins from the ring oscillator
9 but with an independent frequency could exist under the original claims but not under the amended
10 claims, the claim is narrower and therefore substantively different. For claims 11, 13, and 16, the
11 “independent” clock signals could have a “readily predictable phase relationship.” Because of that
12 possibility, the claims are narrower and thereby substantively different. Further, the court should
13 not credit self-serving testimony from the prosecution history.⁵⁵

14 On balance, the court finds that the amended claim language added during reexamination
15 did not substantively amend the asserted ’336 claims’ scope. “Independent” in the disputed claims
16 must be understood to be just that: without dependence of any kind. While HTC offers a more
17 nuanced interpretation that focuses exclusively on frequency control, it cites no intrinsic – or for
18 that matter extrinsic evidence – to support its position. Coupled with the references in the
19 prosecution history indicating that the amendments really were for clarification purposes only,
20 TPL’s argument is more persuasive.

21 ⁵³ See Docket No. 471-5, Ex. E at 2; Docket No. 471-6, Ex. F at 11, 27; Docket No. 471-7,
22 Ex. G at 8-12, 14.

23 ⁵⁴ See Docket No. 471-7, Ex. G at 12, 16.

24 ⁵⁵ See *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1270 (Fed. Cir. 1986) (holding that
25 documents submitted by the patentee during prosecution may be considered for claim interpretation
26 purposes, but “might very well contain merely self-serving statements which likely would be
27 accorded no more weight than testimony of an interested witness or argument of counsel. Issues of
28 evidentiary weight are resolved on the circumstances of each case.”).

1 **2. Motion for Partial Summary Judgment of Non-Infringement and No Willful**
2 **Infringement of the '890 Patent**

3 **a. Non-Infringement of the '890 Patent**

4 The court next considers HTC's motion for summary judgment of non-infringement of the
5 '890 patent claims 11, 12, 13, 17, and 19. As noted above, claims 12, 13, 17, and 19 all depend on
6 independent claim 11.

7 HTC again argues the doctrine of absolute intervening rights entitles it to summary
8 judgment of non-infringement. During reexamination, TPL added claim language further defining
9 a stack pointer as "pointing into said first push down stack," after the examiner identified no
10 function for the stack pointer in the original claim language. The examiner noted that the
11 amendment to claim 1 prevented the claim from being anticipated by the prior art under
12 35 U.S.C. § 102. This change to the '890 patent during reexamination was substantive and that the
13 absolute intervening rights doctrine bars liability arising before the reexamination terminated.
14 absolute intervening rights doctrine bars liability arising before the reexamination terminated.

15 TPL initially responds that HTC's assertion of the absolute intervening rights doctrine is
16 untimely because it did not include the affirmative defense in its answer to TPL's complaint.⁵⁶ As
17 to the merits, TPL says that the amendment only clarified the claim scope but did not substantively
18 amend the claim, precluding the absolute intervening rights doctrine. Further, in *Norwood v.*
19 *Vance* the Ninth Circuit noted that parties may raise affirmative defenses for the first time at
20 summary judgment only if the opposing party is not prejudiced.⁵⁷ Allowing HTC to assert the
21 defense – four years into this litigation – would subject it to unfair prejudice.
22 defense – four years into this litigation – would subject it to unfair prejudice.

23 The court is not persuaded that TPL has established the prejudice necessary to bar HTC's
24 assertion of the absolute intervening rights doctrine at this stage in the litigation. TPL does not, for
25 assertion of the absolute intervening rights doctrine at this stage in the litigation. TPL does not, for

26 ⁵⁶ The initial declaratory judgment complaint in this case was filed February 8, 2008.
27 See *supra* note 1. The '890 patent did not reissue following reexamination until March 1, 2011.
28 See *supra* note 13.

⁵⁷ 591 F.3d 1062, 1075 (9th Cir. 2010).

1 example, articulate the discovery it might have otherwise taken had HTC promptly moved to
2 amend its answer in 2011.

3 Turning to the merits, HTC asserts estoppel and argues claim 11 emerged from
4 reexamination substantively different from former claim 1. During reexamination, the examiner
5 found claim 1 invalid. In an August 12, 2010, advisory action the examiner noted that claim 1
6 failed to provide a function for the “stack pointer” and the claim language only identified the stack
7 pointer as “bidirectionally connected to an internal bus,” – an error claim 11 corrected. The
8 examiner also observed that the additional language in claim 11 avoided the May reference,
9 U.S. Patent No. 4,758,948 (“the ’948 patent”), that teaches using a push down stack but not
10 expressly a stack pointer performing the function that the amended language defines. Therefore,
11 that the absolute intervening rights doctrine bars infringement liability prior to the issuance of the
12 reexamination certificate.
13

14 TPL sees it differently. The change to claim 11 only makes the claim more definite. The
15 examiner’s primary concern with claim 1 centered on the discussion in the May patent of an
16 instruction pointer. The instruction pointer identifies the instructions of a process and under the
17 broadest interpretation the stack pointer likewise could be construed to read onto the prior art. No
18 person of ordinary skill in the art would understand a stack pointer could not perform equivalently
19 to an instruction pointer. As described in claim 1, the stack pointer would be understood by a
20 person of ordinary skill in the art to point to only to the first push down stack referenced in claim 1
21 – and so the additional language only explicitly states what a person of ordinary skill in the art
22 already would understand claim 1 to teach.
23
24

25 HTC replies that TPL’s arguments rely on extrinsic evidence and that the intrinsic evidence
26 reveals that absent the added limitation, the stack pointer was impermissibly vague and the
27 amendment substantively narrowed the claim.
28

The court agrees with HTC. As the examiner's office actions indicated, in the original claim language the stack pointer did nothing except connect to the internal data bus, but TPL's argument that a person of ordinary skill in the art necessarily would color in the ambiguity with an understanding that the stack pointer points only to the first push down stack is not persuasive. As HTC points out, claim 1 (and claim 11) employs the term "comprising," which reveals that the claim is "inclusive or open-ended and does not exclude additional, unrecited elements or method steps."⁵⁸ Given that the specification in fact references a second push down stack, the second stack must be presumed to be distinct from the return stack identified in the claim language, other push down stacks potentially could be used and still fall within claim 1. Thus, where the stack pointer points matters. If multiple push down stacks were included in a processor, it is unclear under the language of claim 1 whether the stack pointer points to one of the stacks, all of the stacks, or some multiple in between.

At bottom, the court finds the added language limits the stack pointer to the first push down stack and substantively changes the scope of the claim. Because the added claim language narrows the scope of the claims, any claims of infringement before the date of the issuance of the reexamination certificate must be precluded.

b. Willful Infringement of the '890 Patent

The court finally addresses the issue of willful infringement related to the '890 patent.

HTC asserts that under the objective recklessness prong, the reexamination and amendment of the '890 patent supports HTC's position that it was not objectively reckless. HTC points out that TPL has offered no evidence that it even knew of the '890 patent before the suit. HTC also argues that the failure by TPL to pursue a preliminary injunction suggests that willful infringement is not at issue.

⁵⁸ *CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1235 (Fed. Cir. 2005).

1 TPL responds that it provided notice to HTC of the patents and of its infringing behavior in
 2 2006. The reexamination process actually cuts against HTC because most of the substance of the
 3 patents in fact survived intact with a “second stamp of validity from the PTO.”⁵⁹ The PTO accepts
 4 92% of reexamination applications, so the PTO’s grant of patent reexamination is not enough to
 5 undercut willful infringement.⁶⁰ A “substantial question of patentability raised by a reexamination
 6 request is not dispositive” in a willfulness inquiry.⁶¹

7 Although the record at least suggests that HTC was made aware of the patents-in-suit as
 8 early as November 2006,⁶² as discussed above the reexamined ’890 patent bars claims of
 9 infringement before the date of the issuance of the certificate because the additional language
 10 added to independent claim 11 narrowed the scope of the claim.⁶³ It follows that because HTC
 11 cannot be held liable for infringement before March 1, 2011, willful infringement for this period is
 12 precluded.
 13

14 The court next turns to whether HTC can be found to have willfully infringed the ’890
 15 patent following reexamination. Generally, a “patentee who does not attempt to stop an accused
 16 infringer’s activities [by moving for a preliminary injunction] should not be allowed to accrue
 17

18
 19
 20 ⁵⁹ Docket No. 469 at 17.

21 ⁶⁰ *See id.* n.11.

22 ⁶¹ *Plumley v. Mockett*, 836 F. Supp. 2d 1053, 1075 (C.D. Cal. 2010); *see also See Lucent Techs.,*
 23 *Inc. v. Gateway, Inc.*, Case No. 07–cv–2000–H, 2007 WL 6955272, at *7 (S.D. Cal. Oct. 30, 2007)
 24 (“The Court does not assume that a reexamination order will always prevent a plaintiff from
 meeting their burden on summary judgment regarding willful infringement, but it does consider
 this as one factor among the totality of the circumstances.”).

25 ⁶² *See* Docket No. 469-12, Ex. C (correspondence from Alliacense notifying HTC that HTC was
 26 infringing the patents contained in the MMP Portfolio, including the ’890 patent).

27 ⁶³ Moreover, at least one district court has noted, albeit in dicta, that “a patentee’s willful
 28 infringement claim fails as a matter of law where the PTO requires amendments to the patent
 before issuing a reexamination certificate.” *Plumley*, 836 F. Supp. 2d at 1075 (explaining court’s
 opinion in *TGIP, Inc. v. AT & T Corp.*, 527 F. Supp. 2d 561 (E.D. Tex. 2007)).

enhanced damages based solely on the infringer's post-filing conduct."⁶⁴ But as TPL happily highlights, HTC conceded in prior litigation "that *Seagate* did not create a *per se* bar to claims for post-filing willful infringement where an injunction was not sought."⁶⁵ "Because *Seagate* did not create a *per se* bar, the determination of whether a patentee may pursue a claim for willful infringement based on post-filing conduct without seeking a preliminary injunction 'will depend on the facts of each case.'"⁶⁶ Patentees who neither practice the invention nor directly compete with the accused infringer are "excused from *Seagate*'s rule that a patentee must seek an injunction to sustain a claim for post-filing willful infringement."⁶⁷ There may be circumstances "where an infringer's post-filing conduct was found to be willful" where "some material change that could create an objectively high likelihood of infringing a valid patent, such as a patent surviving a reexamination proceeding without narrowed claims."⁶⁸

Viewing the evidence in the light most favorable to TPL and drawing all reasonable inferences in its favor, especially TPL's successful licensing program related to the patents-in-suit, the court concludes that a reasonable fact finder could plausibly find facts supporting a conclusion of willful infringement following the reexamination of the '890 patent.

⁶⁴ *Seagate*, 497 F.3d at 1372; see also *Anascape, Ltd. v. Microsoft Corp.*, Case No. 9:06-cv-158, 2008 WL 7182476 (E.D. Tex. Apr. 25, 2008) (patentee who did not move for preliminary injunction was not entitled to benefit from its lack of diligence by obtaining enhanced damages for willfulness during the post-filing period).

⁶⁵ *DataQuill Ltd. v. High Tech Computer Corp.*, 887 F. Supp. 2d 999, 1015 (S.D. Cal. 2011).

⁶⁶ *Id.* (citing *Seagate* 497 F.3d at 1374).

⁶⁷ *Id.*

⁶⁸ *LML Holdings, Inc. v. Pac. Coast Distrib. Inc.*, Case No. 11-cv-06173-YGR, 2012 WL 1965878 (N.D. Cal. May 30, 2012) (citing *St. Clair Intellectual Prop. Consultants, Inc. v. Palm, Inc.*, Case No. 04-1436-JJF-LPS, 2009 WL 1649751, at *1 (D. Del. Jun.10, 2009)); see also *Webmap Technologies, LLC v. Google, Inc.*, Case No. 2:09-cv-343-DF-CE, 2010 WL 3768097, at *2-3 (E.D. Tex. Sep. 10, 2010).

IT IS SO ORDERED.

Dated: September 17, 2013



PAUL S. GREWAL
United States Magistrate Judge

United States District Court
For the Northern District of California